

Abstract

A magnetic recording medium having a substrate and a SiO₂-containing magnetic layer comprising grains is disclosed. The magnetic layer has substantial SiO₂ between the grains. This condition is achieved by sputter depositing the magnetic layer in a chamber containing a gas under vacuum. The gas contains substantially no oxygen. Such a gas is one into which no oxygen is intentionally introduced to create an oxygen-containing gas mixture but may contain a trace amount of oxygen molecules in an amount that are present in air under a similar vacuum as that of the gas in the chamber.